

Application No. 10/757,668  
Amendment dated June 19, 2007  
Reply to Office Action of March 12, 2007

Docket No.: 022720.0112PTUS

RECEIVED  
CENTRAL FAX CENTER  
JUN 20 2007

## REMARKS

### I. The Claims

Pursuant to this paper, claims 1-67 remain pending. Claims 23, 33 and 45 have been amended herein. Support for the amendments to claims 23, 33 and 45 is found, for example, at page 12, l. 24-28 (¶0029) of the originally filed specification.

No new matter has been added by the amendments of the claims herein.

### II. Oath/Declaration

The Declaration was rejected as allegedly being defective for failing to identify the mailing address of each inventor. (Office Action, ¶2.)

Applicant submits that the rejection of the Declaration is mistaken for the following reason.

A Declaration of Inventorship was concomitantly filed with the referenced application using Form PTO/SB/01A "Declaration (37 CFR 1.63) for Utility or Design Application Using An Application Data Sheet (37 CFR 1.76)." Accordingly, the Form PTO/SB/01A, which was duly executed by the sole inventor, does not itself include the inventor's address, which was instead fully and properly listed on page 2 of the concomitantly filed Application Data Sheet ("ADS"). A copy of each of the Declaration (executed Form PTO/SB/01A) and accompanying ADS are available and separately listed in the USPTO's PAIR system record for the referenced application under the filing date, January 14, 2004.

Accordingly, the originally filed Declaration is entirely proper and acknowledgment thereof is respectfully requested.

### III. Claim rejections under 35 U.S.C. §103(a)

Claims 1-67 were rejected under 35 U.S.C. §103(a) as allegedly being obvious over U.S. Patent No. 6,427,082 to Nordstrom ("Nordstrom") in view of U.S. Patent No. 6,384,915 to Everett ("Everett"). (Office Action, ¶4.)

(A.) The present rejection of the claims is generally overcome for the following reasons.

As set forth in MPEP 2143.01, "[t]he mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination," citing "In re Mills, 916 F.2d 680, 16 USPQ2d 1430 (Fed. Cir.

Application No. 10/757,668  
Amendment dated June 19, 2007  
Reply to Office Action of March 12, 2007

Docket No.: 022720.0112PTUS

1990).” Indeed, as further set forth in the same section, “[o]bviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so,” citing *In re Kahn*, 441 F.3d 977, 986, 78 USPQ2d 1329, 1335 (Fed. Cir. 2006) (discussing rationale underlying the motivation-suggestion-teaching requirement as a guard against using hindsight in an obviousness analysis), and [t]he teaching, suggestion, or motivation must be found either explicitly or implicitly in the references themselves or in the knowledge generally available to one of ordinary skill in the art. (Emphasis added.)

Nordstrom specifically teaches a non-catheter-based optical interrogation system that employs switches for evaluating cervical tissue using fluorescence spectroscopy and backscattered light spectroscopy. See Nordstrom col. 5, l. 32- col. 6, l. 15, and entire document. Everett teaches a catheter system employing only a single optical modality, optical coherence domain reflectometry, wherein a switch is used to select different *spatial* channels that correspond to different optical fibers in the catheter. See Everett FIG. 2A and discussion thereof at col. 3, l. 16-43, and entire document. Neither of the cited references provides the required motivation for general combination of the references, nor for the selective combination of the references that would be needed to read on the presently claim invention. Indeed, the Examiner has not cited specific motivation in the references for the asserted combination, but only vaguely asserted that Everett is “in the same problem solving area” as Nordstrom. (Office Action, page 3, l. 8-13.) Moreover, following Nordstrom, a skilled worker would have no motivation to implement the apparatus in catheter format because the purpose of Nordstrom is the analysis of the cervix, which teaches against use of, or reconfiguration into, an intravascular catheter. Accordingly, the present rejection fails to provide the required motivation for combination of the references and appears to be based on the application of improper hindsight analysis.

In view of the above, Applicant respectfully requests withdrawal of the present claim rejections under 35 U.S.C. §103(a).

(B.) Although the rejection of all of the claims over Nordstrom in view of Everett should be withdrawn for the reasons set forth in section (A.) above, Applicant also wishes to specifically address the further assertions of the Examiner specifically.

(i.) In connection with claims, 9, 10, 19, 20, 28-30, 38-41, 52, 61 and 62, the Examiner specifically asserted, citing ¶0008 of the originally filed specification, that, although neither

Application No. 10/757,668  
Amendment dated June 19, 2007  
Reply to Office Action of March 12, 2007

Docket No.: 022720.0112PTUS

Nordstrom nor Everett teach the inclusion of a treatment laser, Applicant has allegedly *admitted* that it is known in the art to include excimer laser treatment means in optical diagnostic catheter systems.

This aspect of the present rejection is overcome for the following reasons.

Applicant has not made any such admission. ¶0008 of the originally filed specification is reprinted below in its entirety (emphasis added):

[0008] Similarly, the usefulness of catheters in treating and removing plaque is often limited. Recent findings indicate that nonstenotic, lipid rich coronary plaques, also called "vulnerable plaques" or "biological hot plaques" are exceptionally likely to cause the vast majority of fatal heart attacks. In other words, the majority of the approximately 1,300,000 heart attacks that will occur this year are caused by a soft plaque, for which there is not currently available a viable tool for identifying, diagnosing, or treating. While catheter-based excimer lasers have been proven to be effective at treating and removing soft plaques, their use has been limited by the practitioner's inability to see and control the position of the catheter before, during, and after using the excimer laser.

Nothing in the cited paragraph, or the application in its entirety, constitutes an admission as asserted by the Examiner. Moreover, it is the very limitation cited in the excerpt that the presently claimed invention overcomes. Accordingly, withdrawal of the present aspect of the rejection is also requested in view of the foregoing reasons.

(ii.) In connection with claims 23, 33 and 45, the Examiner has also asserted that although Nordstrom fails to provide a 45-degree mirror at the end of diagnostic optical fibers, Everett allegedly teaches an embodiment having a mirror angled at 45 degrees "in order to maintain polarization of the source light" and that it would have been obvious "to include the mirror of Everett,... in the invention of Nordstrom... in order to maintain polarization of the input light source at the end of the diagnostic fiber." (Office Action, page 3, l. 31 to page 4, l. 4.)

In response to this aspect of the rejection, Applicant has amended claims 23, 33 and 45 herein to more clearly recite that the angled mirror of the claims laterally redirects light, rather than affecting polarization. Accordingly, withdrawal of the present aspect of the rejection is also requested in view of the foregoing reasons.

#### IV. Conclusion

Pursuant to this paper, Applicants submit that pending claims 1-67 are in condition for further examination and allowance, which action is hereby requested.

Application No. 10/757,668  
Amendment dated June 19, 2007  
Reply to Office Action of March 12, 2007

Docket No.: 022720.0112PTUS

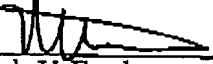
Authorization is hereby given to charge any and all fees due in connection with this paper to Deposit Account No. 50-2228.

In view of the above amendment, applicant believes the pending application is in condition for allowance.

Applicant submits concurrently a request for extension of time under 37 C.F.R. 1.136 and the accompanying fee. In the event that any additional extensions of time are necessary to prevent the abandonment of this patent application, then such extension of time are hereby petitioned. The U.S. Patent and Trademark Office is hereby authorized to charge any fees that may be required in conjunction with this submission to Deposit Account Number 50-2228, referencing matter number 022720.0112PTUS from which the undersigned is authorized to draw.

Dated: June 20, 2007

Respectfully submitted,

By   
Michele V. Frank  
Registration No.: 37,028  
PATTON BOGGS LLP  
8484 Westpark Drive, 9th Floor  
McLean, Virginia 22102  
(703) 744-8000  
(703) 744-8001 (Fax)  
Attorney for Applicant